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TITLE: FILE REVISION MANAGEMENT SYSTEM
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INVENTOR-INFORMATION:

NAME	COUNTRY
KOSHIZAKA, YOSHIHIRO	N/A

ASSIGNEE-INFORMATION:

NAME	COUNTRY
NEC CORP	N/A

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ABSTRACT:

PROBLEM TO BE SOLVED: To manage even the revision of an application having no file revision managing function by monitoring the filing operation of the application.

SOLUTION: A filing operation monitoring part 21 detects/grasps the filing operation of an application 1 When the filing operation is 'file deletion', the name of a file receiving the deleting operation and a new name adding the date and time of updating before the name of the file receiving the deleting operation are stored through a processing part 22 into a deletion file name

storage part 23 as backup file names. The file actually receiving the deleting operation is not deleted but only the name is changed into backup name. When the filing operation of the application 1 is 'name change', the changed file name is collated with the deletion file name stored in the deletion file name storage part 23 and concerning the deletion file name non-coincident with the changed file name, the file of the backup name is deleted.

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PATENT ABSTRACTS OF JAPAN

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(71)Applicant : **NEC CORP**

(22)Date of filing : **05.03.1999**

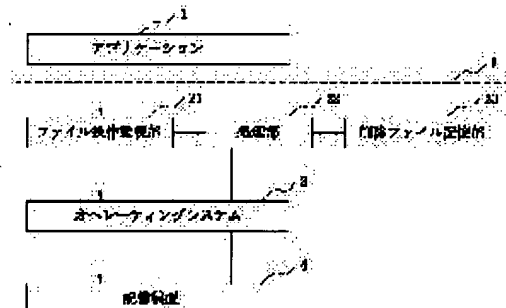
(72)Inventor : **KOSHIZAKA YOSHIHIRO**

(54) FILE REVISION MANAGEMENT SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To manage even the revision of an application having no file revision managing function by monitoring the filing operation of the application.

SOLUTION: A filing operation monitoring part 21 detects/grasps the filing operation of an application 1. When the filing operation is 'file deletion', the name of a file receiving the deleting operation and a new name adding the date and time of updating before the name of the file receiving the deleting operation are stored through a processing part 22 into a deletion file name storage part 23 as backup file names. The file actually receiving the deleting operation is not deleted but only the name is changed into backup name. When the filing operation of the application 1 is 'name change', the changed file name is collated with the deletion file name stored in the deletion file name storage part 23 and concerning the deletion file name non-coincident with the changed file name, the file of the backup name is deleted.



LEGAL STATUS

[Date of request for examination] 01.03.2000

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[Patent number]

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[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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CLAIMS

[Claim(s)]

[Claim 1] The revision managerial system of the file characterized by having the history of the file which received operation by supervising the file manipulation from application, and the revision function manager who manages storage, deletion, etc.

[Claim 2] The revision managerial system of the file according to claim 1 characterized by changing a name and keeping it on storage about the file which received deletion operation from application.

[Claim 3] The revision managerial system of the file according to claim 1 or 2 characterized by regarding it except the file whose name collates the file name after change, and the multiple-files name which received deletion operation from application in the past, and corresponds as a work file when the file name change operation from application is detected.

[Claim 4] It is the revision managerial system of the file according to claim 3 characterized by deleting file data at the time about the file it was considered at the time of file name change operation that was a work file, without carrying out revision management henceforth.

[Claim 5] The revision managerial system of the file according to claim 2 to 4 characterized by using the time at the time of updating work for the name of a file to change.

[Claim 6] The revision managerial system of the file according to claim 1 to 5 characterized by having the deletion file memory section for memorizing the name of the file which received deletion operation from application, and the name changed in keeping this file as backup.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the backup method of a computer file for making a revision function manager possible in the application which is not equipped with the revision function manager of a file.

[0002]

[Description of the Prior Art] Before, various examination has put on backup management of a file. For example, in JP,4-369745,A, a history is taken by using as a temporary backup file the backup file created when a user fulfills the conditions of a convention during application use or time passes, and the method of saving in it only the temporary file which can actually be compiled and performed as the formal backup method is indicated. Similarly, there is a thing called a revision function manager about backup management of a file. A revision function manager is a function memorizes the file which received deletion operation or name change operation, and its deletion and name change history, and it enabled it to pull out again by operation of a user on application at the time of the need. As for the revision function of this file, the word processor "Word" of Microsoft Corp. etc. has been realized as one function of application on application software in part so that it may be known well.

[0003]

[Problem(s) to be Solved by the Invention] However, if only specific application software offers the revision function manager of a file like before and it checks with a present age computer situation with the need of using them, carrying out the concurrency of two or more applications, it cannot be said that it is efficient. Moreover, if revision management of the file is carried out with the applications in each, work overlaps between software and futility arises.

[0004] this invention is made in view of the above present condition problem. Namely, even if it is application software without the revision function manager of a file, while revision management is attained and raising reliability about backup processing of the file which is the true meaning of a revision function, increase in efficiency is raised by attaining communalization about the target application software, and it aims at offering the revision managerial system of the file which can decrease the cost by the side of creation.

[0005]

[Means for Solving the Problem] this invention which solves the aforementioned technical problem is the revision managerial system of the file characterized by performing revision management under supervising the file manipulation from application. According to the revision managerial system of the file of this invention, since the file manipulation from application is supervised, it can respond serially for every renewal generating of data, such as file deletion, name change, etc. by application. Moreover, with the view from a creation side, there is an advantage that the cost which adds a revision function to each application can be excluded. With the view from a user side, since the work which overlaps between the offered applications decreases at the same time the need of taking into consideration which software it not performing performing revision management is lost, there is an advantage which can save the memory of storage.

[0006] Moreover, this invention is the revision managerial system of the file characterized by memorizing the file which received deletion operation from application as a backup file by changing a name. Since according to the revision managerial system of the file of this invention ** file data is immediately kept by the alias on storage, without being eliminated even if a user performs deletion operation of a file, even if a deletion file is needed again, it can respond easily. For example, though a file is deleted by the unforeseen accident, the return is easy, and there is a big advantage from the field of safety.

[0007] Moreover, this invention is the revision managerial system of the file characterized by regarding it except the file whose name collates the file name after change, and the multiple-files name which received deletion operation from application in the past, and corresponds as a work file, when the file name change operation from application is detected. That the file name which exists in a deletion operation history, and the change name of the file which received name change operation into the editing task are in agreement shows that a certain relevance exists between these two files. Conversely, if it says, regarding it as the work file only for working temporary edit etc. will realize rational judgment in alignment with human being's thinking method about a conflicting file.

[0008] Moreover, this invention is the revision managerial system of the file characterized by deleting file data at the time about the file it was considered at the time of file name change operation that was a work file, without carrying out revision management henceforth. In the revision managerial system of the file of this invention, about the work file which originally

does not have the need for preservation as a backup file, since revision management is not performed, the futility of revision management activities and the futility of storage memory can be excluded.

[0009] Moreover, this invention is the revision managerial system of the file characterized by using the time at the time of updating work for the name of a backup file by revision management. According to the revision managerial system of the file of this invention, by using for a backup file name, it stands in a line, the time of a refix date is changed, and ***** etc. easy-izes the file handling within a revision managerial system.

[0010] Moreover, this invention is the revision managerial system of the file characterized by having the deletion file memory section for distinguishing a work file and other files. In the revision managerial system of the file of this invention, in order to distinguish a work file and other files, the file it was considered in the deletion file name storage section that was a work file through condition operation is deleted serially, and it is made not to carry out revision management of this. The multiple-files name which received deletion operation from application in the past is concretely collated to the file name change operation from application, it is regarded except the file whose name corresponds as a work file, and it is deleted. Thus, the file which cannot be needed again is deleted from on storage.

[0011]

[Embodiments of the Invention] With reference to a drawing, it explains per revision managerial system of the file of the operation form of this invention below.

[0012] Form drawing 1 of operation is the block diagram of the operation form of this invention.

[0013] Application software which operates on a computer and which is generally used, such as a word processor and spreadsheet software, is pointed out in the application 1 in drawing. The revision Management Department 2 which actually performs revision management consists of the file manipulation Monitoring Department 21, the processing section 22, and the deletion file name storage section 23. An operating system 3 points out software, such as "Windows 98" etc. of Microsoft Corp. It is storage equipment of fixed [, such as a magnetic disk,] or a removal formula in storage 4.

[0014] Drawing 2 is a flow chart which shows operation by the whole operation form of this invention.

[0015] First, the file manipulation Monitoring Department 21 detects and grasps file manipulation of application 1 (S1). When the file manipulation of application 1 is "file deletion" (S2), the new name which added the character which shows the time of a refix date before the file name which received deletion operation, and the file name which received deletion operation is memorized in the deletion file name storage section 23 through the processing section 22 as a backup file name (S3). Drawing 3 is the deletion file name storage section 23 interior, and is the conceptual diagram showing how the file name which received deletion operation, and the changed file name are kept. Then, only a name is changed into the backup name decided by S3, without deleting the file which actually received deletion operation (S4). When the file manipulation of application 1 is "change of a name" (S5), the deletion file name memorized by the file name after change and the deletion file name storage section 23 is collated (S6). The file of a backup name is deleted about the deletion file name which is not in agreement with the file name after change as a result of collating (S7).

[0016] Drawing 4 is the example view showing 1 operation form of this invention.

[0017] Operation is divided and explained to five steps.

(Operation 1) It is assumed that application 1 created work file "tmp1.doc" in the middle of edit by setting to "org.doc" the file which application 1 edits. As a result, two files of "org.doc" and "tmp1.doc" will be kept by storage 4.

(Operation 2) application -- one -- editing -- **** -- a file -- " -- org . -- doc -- " -- it is going to save -- the time -- temporary -- edit -- the contents -- memorizing -- a file -- " -- \$ -- \$ -- \$. -- doc -- " -- creating .

(Operation 3) Unnecessary file "after [preservation of org.doc] and work file " tmp1.doc" is deleted. the -- the time -- deletion -- a file name -- storage -- the section -- 23 -- deleting -- having -- a file -- a name -- " -- tmp -- one . -- doc -- " -- a refix date -- the time -- having added -- backup -- a name -- " -- tmp -- one -- _ -- 19980930 -- _ -- 1729 . -- doc -- " (17:29 on September 30, 1998) -- memorizing . Without being deleted, file "tmp1.doc" which should be deleted changes a file name into a backup name, and is kept.

(Operation 4) the file of the edited origin -- the time of deleting "org.doc" -- a work file -- like the time of deleting "tmp1.doc", the backup name of a file is memorized in the deletion file name storage section 23, and a file name is also changed into a backup name

(Operation 5) temporary file which finally saved the edit result -- the name of "\$\$\$\$.doc" -- the original file "file whose name collates "org.doc" with deletion file name of the deletion file name storage section 23, and does not correspond in case it changes into org.doc"" tmp1.doc -- " -- ***** -- the file name after changing into a backup name, and a file -- "tmp1_19980930_1729.doc" is deleted

[0018]

[Effect of the Invention] this invention is supervising the file manipulation of application, and offers the system which could be made to perform revision management also with the application which does not have the revision function manager of a file as explained above. Moreover, by the system of this invention, application is characterized by not carrying out revision management of the work file which carried out deletion operation by having the deletion file name storage section in a system. There is an effect which can cut down the cost which adds a revision function to each application by this invention. Moreover, the work which overlaps between the offered applications decreases and there is the saving effect of memory by not carrying out revision management of the useless things, such as a work file, at the same time the need of taking into consideration which software it not performing performing revision management with the view from a user side is lost.

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TECHNICAL FIELD

[The technical field to which invention belongs] this invention relates to the backup method of a computer file for making a revision function manager possible in the application which is not equipped with the revision function manager of a file.

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PRIOR ART

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TECHNICAL PROBLEM

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MEANS

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[0012] Gestalt drawing 1 of operation is the block diagram of the operation gestalt of this invention.

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[0017] Operation is divided and explained to five steps.

(Operation 1) It is assumed that application 1 created work file "tmp1.doc" in the middle of edit by setting to "org.doc" the file which application 1 edits. As a result, two files of "org.doc" and "tmp1.doc" will be kept by storage 4.

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(Operation 3) Unnecessary file "after [preservation of org.doc"] and work file "tmp1.doc" is deleted. the -- the time -- deletion -- a file name -- storage -- the section -- 23 -- deleting -- having -- a file -- a name -- " -- tmp -- one . -- doc -- " -- a refix date -- the time -- having added -- backup -- a name -- " -- tmp -- one -- _ -- 19980930 -- _ -- 1729 . -- doc -- " (17:29 on September 30, 1998) -- memorizing . Without being deleted, file "tmp1.doc" which should be deleted changes a file name into a backup name, and is kept.

(Operation 4) the file of the edited origin -- the time of deleting "org.doc" -- a work file -- like the time of deleting "tmp1.doc", the backup name of a file is memorized in the deletion file name storage section 23, and a file name is also changed into a backup name

(Operation 5) temporary file which finally saved the edit result -- the name of "\$\$\$\$.doc" -- the original file "file whose name collates "org.doc" with deletion file name of the deletion file name storage section 23, and does not correspond in case it changes into org.doc"" tmp1.doc -- " -- ***** -- the file name after changing into a backup name, and a file --

"tmp1_19980930_1729.doc" is deleted

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram of the operation gestalt of this invention.

[Drawing 2] It is the flow chart which shows operation by the whole operation gestalt of this invention.

[Drawing 3] In the deletion file name storage section 23, it is the conceptual diagram showing how the file name which received deletion operation, and the changed file name are kept.

[Drawing 4] It is the example view showing 1 operation gestalt of this invention.

[Description of Notations]

1 Application

2 Revision Management Department

3 Operating System

4 Storage

21 File Manipulation Monitoring Department

22 Processing Section

23 Deletion File Name Storage Section

[Translation done.]

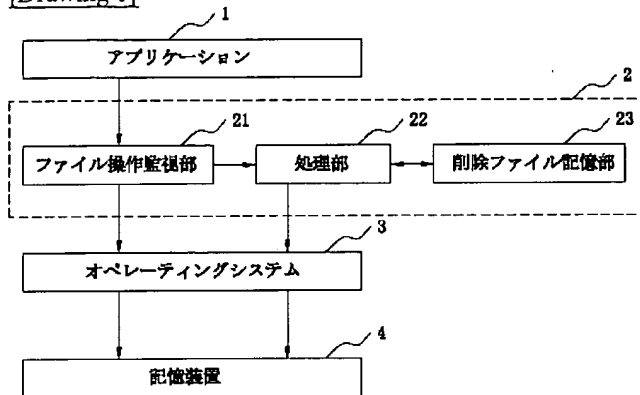
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DRAWINGS

[Drawing 1]

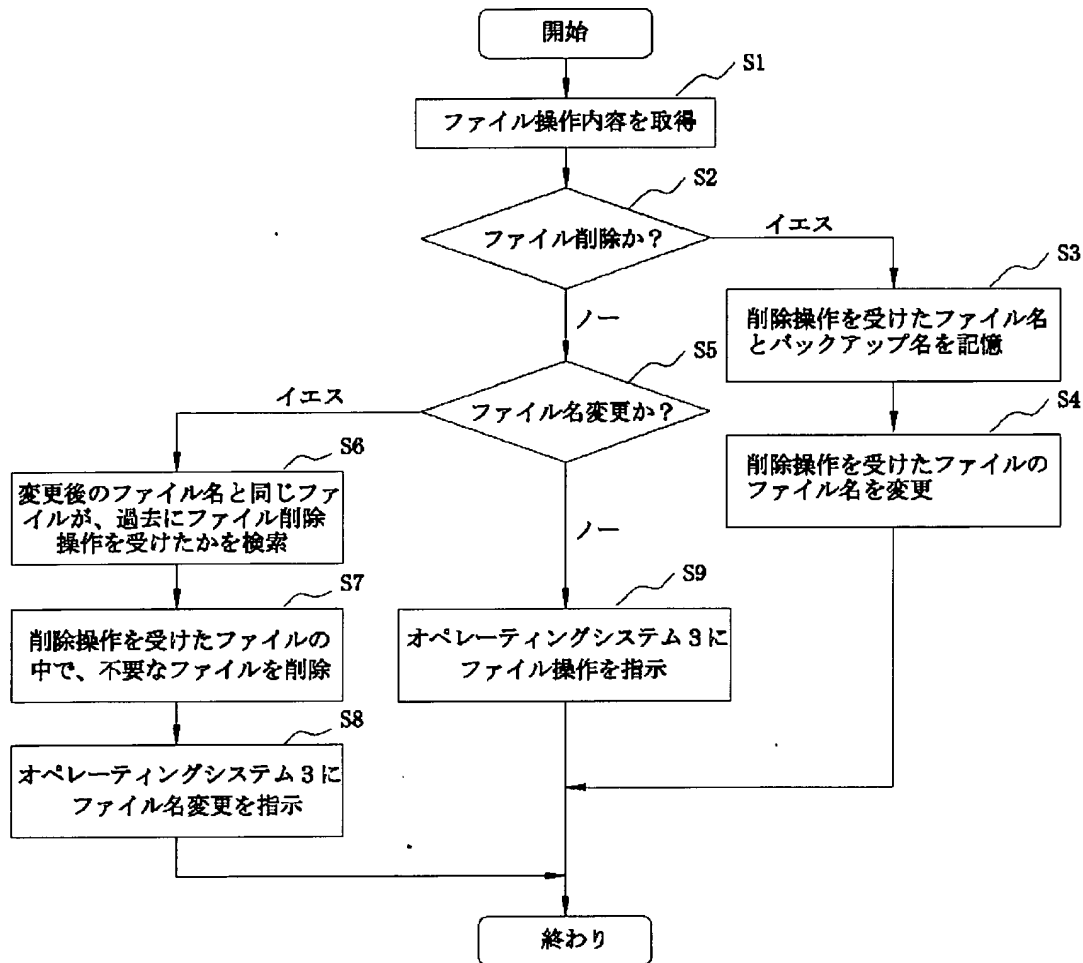


[Drawing 2]

削除ファイル名記憶部

削除ファイル名	バックアップ名
org.doc	org_19980930_1730.doc
tmp1.doc	tmp1_19980930_1729.doc
tmp2.doc	tmp2_19980930_1728.doc
•	•
•	•
•	•
•	•

[Drawing 3]



[Drawing 4]

<操作 1 >

ファイル作成: "tmp1.doc"

記憶装置 4 <操作 1 の結果>

org.doc
tmp1.doc

<操作 2 >

ファイル作成: "\$\$\$\$.doc"

記憶装置 4 <操作 2 の結果>

org.doc
tmp1.doc
\$\$\$\$.doc

<操作 3 >

ファイル削除: "tmp1.doc"

記憶装置 4 <操作 3 の結果>

org.doc
tmp1_19980930_1729.doc
\$\$\$\$.doc

ファイル名を変更

削除ファイル記憶部<操作 3 の結果>

削除ファイル名を記憶

削除ファイル名	バックアップ名
tmp1.doc	tmp1_19980930_1729.doc

<操作 4 >

ファイル削除: "org.doc"

記憶装置 4 <操作 4 の結果>

org_19980929_0830.doc
tmp1_19980930_1729.doc
\$\$\$\$.doc

ファイル名を変更

削除ファイル記憶部<操作 4 の結果>

削除ファイル名を記憶

削除ファイル名	バックアップ名
tmp1.doc	tmp1_19980930_1729.doc
org.doc	org_19980929_0830.doc

ファイル名を検索

<操作 5 >

ファイル名変更: "\$\$\$\$.doc" → "org.doc"

記憶装置 4 <操作 5 の結果>

org_19980929_0830.doc
org.doc

ファイル名の変更及び
不要なファイルを削除

[Translation done.]